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January 31, 1996

VIA HAND DELIVERY

Mr. William F. Caton
Acting Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20006
STOP CODE: 1170

Re: Ex Parte Communication in CC Docket No. 95-185

Dear Mr. Caton:

Pursuant to Section 1.1206 of the Commission's Rules, notice is hereby given of the attached written *ex parte* communication, *Back to the Future: The FCC and Local Exchange Competition into the Next Century*, prepared on behalf of Cox Enterprises, Inc., for incorporation into the record in the above-referenced proceeding. An original and two copies of this notice and the attached paper are being filed with the Secretary's office.

If you have any questions, please do not hesitate to contact the undersigned.

Respectfully submitted,

Laura Phillips

Laura H. Phillips
Counsel for Cox Enterprises, Inc.

James O. Robbins
President and Chief Executive Officer

Cox Communications, Inc.
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January 25, 1996

COX COMMUNICATIONS

The Honorable Reed E. Hundt
Chairman
Federal Communications Commission
1919 M Street, NW, Room 814
Washington, D. C 20554

Dear Chairman Hundt:

During the golden age of philosophers at Harvard College, George Santayana published The Life of Reason. Santayana noted that a society which fails to learn from the mistakes of its past is doomed to repeat them. Conversely, he urged that society should use the lessons of history as a pattern for future success.

With Santayana's sage advice in mind, Cox Enterprises has produced this white paper to describe the historic part that the FCC played in the break up of AT&T's entrenched telecommunications monopoly so that successful long distance competition could develop.

In a series of politically difficult (indeed often deeply split) decisions, the Commission nevertheless moved inexorably toward its competitive vision: first by requiring the interconnection of equipment and services to the AT&T network; second by enabling competition in private line interexchange services; third by synthesizing its interconnection and private line decisions into a coherent set of procompetitive policies; and finally by providing new entrant long distance service providers forbearance from the full burden of federal regulations.

Just as microwave and fiberoptic technologies were combined with Commission regulatory reforms to make long distance competition first a possibility and then a success, now new high capacity transmission media and declining cost switch technology give rise to the promise of competition in local telephone service. However, the Commission must repeat its implementation of appropriate regulatory reform to make the promise of local loop competition a reality.

Especially striking is the extraordinary similarity between the regulatory reforms that were needed to enable long distance competition to flourish and the reforms that will be needed to accomplish the same competitive result in local telephone service. It is clear that the Commission will have to approach its new regulatory task with the same courage and steadfast commitment. It will have to issue a series of orders which will be resisted with all the collective might of the seven Regional Bell Operating Companies Indeed, the RBOCs will defend their local loop monopoly with as much zeal and intensity as AT&T's Bell System used in defending itself from long distance competitors.

One final lesson of history is also apparent. The Commission must accomplish its daunting tasks in much less time than it took before. Because the deployment of alternative and viable local loops is so capital intensive, a lengthy process for regulatory reform would threaten the emergence of competition. It would also damage the world leadership in telecommunications that the United States currently enjoys.

Never in its history has the Commission had such an opportunity to serve the public interest. Competition in local telecommunications services will open up vast new wired and wireless telephone services, video telephony and high speed access to on-line and internet services. Such new competitive networks will be capable of transporting graphics and video information as well as print data.

Cox believes that the Commission, in utilizing the lessons from its distinguished past, is up to the task.

Sincerely yours,

James O. Robbins

BACK TO THE FUTURE:

THE FCC AND LOCAL EXCHANGE COMPETITION INTO THE NEXT CENTURY

COX ENTERPRISES, INC.

EXECUTIVE SUMMARY

As the telecommunications industry and the Federal Communications Commission close in on the uncharted territory of the next century in search of ways to foster local exchange competition, a maxim from the annals of philosophy should be borne in mind. In *The Life of Reason*, published during the golden era of Harvard philosophers, George Santayana stated that "those who cannot remember the past are condemned to repeat it." While Santayana thus sentenced the history-challenged of the world ceaselessly and blindly to relive their mistakes, he also urged the enlightened among us to capitalize on the lessons of history as a model for future success. With Santayana's sage advice in mind, Cox Enterprises, Inc., has produced this white paper to show how the Commission should promote local exchange competition by building on the historic role it played in the break up of AT&T and the evolution of long distance competition.

It is fortunate that the Commission will not be operating in a vacuum in pursuing pro-competitive goals for the local exchange market, but may draw from a wealth of decision-making experience accumulated in facilitating long distance competition and reining in AT&T's long distance monopoly. Just as microwave and fiber optic technologies facilitated Commission regulatory reforms that made long distance competition a success, now new high capacity transmission media and declining cost switch technology give rise to the promise of competition in local telephone service. Competition in local telecommunications services will open up vast new opportunities for wired and wireless telephone services, video telephony and high speed access to online and Internet services. However, the Commission must repeat its implementation of appropriate regulatory reform to make the promise of local loop competition a reality.

In a series of politically difficult (indeed often deeply split) decisions in the 1960s and 1970s, the Commission nevertheless moved inexorably toward its vision of long distance competition. The Commission upheld telephone subscribers' and competing private line carriers' right to interconnect telephone terminal equipment and private line services of their own choosing, so long as the interconnection was privately beneficial without being publicly detrimental. The Commission also aggressively investigated and sanctioned unjustly discriminatory restrictions and anticompetitive cost-shifting in the AT&T/Bell System interconnection tariffs. Present day efforts by competitive access providers ("CAPs"), wireless carriers and other competitive LECs to gain nondiscriminatory interconnections to incumbent LECs' essential local loop facilities provide a parallel scenario for strong Commission action.

Furthermore, just as the Commission developed and defended a subscriber's and competitor's right to interconnect to AT&T's facilities in the terminal equipment market, the Commission must be vigilant in preventing discrimination and anticompetitive cost-shifting by LECs in providing competitors and their customers with interconnection to the LECs' essential local loop facilities. Establishing nondiscriminatory access and interconnection to essential LEC facilities will not only foster facilities-based competition in the local exchange market but will also benefit consumers by fueling competitive delivery of advanced local exchange services. The Commission's recent proposal to adopt a bill-and-keep mutual compensation mechanism for interconnection between incumbent LECs and their wireless competitors is an important step in the right direction.

In addition to policing monopoly abuses at the interface of AT&T's long distance network, the Commission also provided competitors with the raw materials to compete head-on with AT&T in interexchange markets. The Commission instituted proceedings to allocate advanced microwave spectrum for use in private line interexchange and "specialized common carrier" communications. Authorization of private lines services allowed actual facilities-based competition to develop and gave interexchange companies such as MCI Communications, Inc. ("MCI") and Sprint Communications Company, L.P. ("Sprint") the ability to challenge AT&T.

The Commission also developed an innovative two-tiered regulatory structure in its *Competitive Carrier* docket to apply the full panoply of common carrier regulation to AT&T's dominant monopoly services while reducing regulatory burdens on non-dominant competitors through a policy of regulatory forbearance. Mirroring these policies will stimulate new entry into the local exchange market by easing regulatory burdens and barriers to entry for competitors, while applying strict regulatory oversight to open up incumbent LECs' local loops.

The Commission must also recreate its success in ensuring equal opportunities for access to the local exchange and local exchange customers. In the same way that equal access policies fostered interexchange competition, adoption of true service provider number portability will encourage competition in the local exchange market. Both the Commission and state regulators have recognized that local service provider telephone number portability — the ability to change local telephone companies without changing telephone numbers — is a critical element in the development of local competition. The Commission should mandate implementation of both short-term and long-term number portability solutions.

Especially striking is the extraordinary similarity between the regulatory reforms needed to enable long distance competition to flourish and the reforms needed to accomplish the same competitive result in the local telephone market. It is clear that the Commission must approach its new regulatory task with the same courage and steadfast commitment. It will have to issue a series of orders that will be resisted with the collective might of seven Regional Bell Operating Companies. Indeed, the RBOCs may be expected to defend their local loop monopoly with that same zeal and intensity that AT&T used in defending itself from long distance competitors.

One final lesson of history is also apparent. The Commission must accomplish its daunting tasks in much less time than it took before. Because the deployment of alternative and viable local loops is so capital intensive, a lengthy process of regulatory reform would crush the emergence of competition. It would also damage the world leadership in telecommunications that the United States currently enjoys.

Never in its history has the Commission had a greater opportunity to serve the public interest. Cox believes that the Commission, in utilizing the lessons from its distinguished past, is up to the task.

TABLE OF CONTENTS

Page

BACK TO THE FUTURE:
THE FCC AND LOCAL EXCHANGE COMPETITION
INTO THE NEXT CENTURY

INTRODUCTION

As the Federal Communications Commission approaches the uncharted territory of the next century in search of policies to foster local exchange competition, a maxim from the annals of philosophy should be borne in mind. In *The Life of Reason*, published during the golden era of Harvard philosophers, George Santayana stated that "those who cannot remember the past are condemned to repeat it."[1/] While Santayana thus sentenced the history-challenged of the world ceaselessly and blindly to relive their mistakes, he also urged the enlightened among us to capitalize on the positive lessons of history as a model for future success. With Santayana's sage advice in mind, Cox Enterprises, Inc., has produced this white paper to show how the Commission can and should promote local exchange competition by building on the historic role it played in the break up of AT&T and the evolution of long distance competition.

It is fortunate that the Commission will not be operating in a vacuum in pursuing pro-competitive goals in the local exchange, but may draw from a wealth of decision-making experience accumulated in facilitating long distance competition and reining in AT&T's monopoly. Just as microwave and fiber optic technologies facilitated Commission regulatory reforms that made long distance competition a success, now new high capacity transmission media, new wireless service allocations and declining cost switch technology give rise to the promise of competition in local telephone service. However, the Commission must repeat its success at regulatory reform to make the promise of local loop competition a reality.

One of the primary goals of the pending telecommunications reform legislation, the "Telecommunications Act of 1995", is to spur competition in the local telephone exchange by reducing the ability of incumbent Bell Operating Companies ("BOCs") and other wireline local exchange carriers ("LECs") to exert market power to disadvantage new entrants. Successful and timely development of competition in the local exchange market in the wake of this legislation will depend on the FCC's ability to repeat its successful pro-competitive record of the past. Just as the innovative and forward-looking policies adopted by the FCC in the 1960s and 1970s were instrumental in dissolving AT&T's monopoly over long distance telecommunications and equipment, the FCC must seize the opportunity when implementing the pending reform legislation to break the monopoly vise grip that incumbent LECs currently exert over the local exchange bottleneck.

This paper concludes that, to establish competition in the local exchange, the FCC must remain alert to the LECs' existing monopoly and the problems inherent in transitioning from a monopoly market to competition. In the past, the FCC acknowledged that the introduction of competition in the monopoly long distance market required firm and

1/ *See* George Santayana, THE LIFE OF REASON, vol.1, ch.12 (1905).

consistent policies that would ameliorate both anticompetitive threats of cross-subsidization between monopoly and competitive services and discriminatory refusals to provide service. Today, the FCC must remember the lessons of this history to ensure the development of competition in the local exchange market.

Part I of this paper describes the historic role of the FCC, and the Common Carrier Bureau ("CCB") in particular, in breaking up AT&T's monopoly. Part II describes how the Commission's role in the development of long distance competition and the pro-competitive reforms in pending legislation establish a paradigm for local competition. Part III provides some conclusions about the central task of the FCC to help usher in local exchange competition.

I. HISTORIC FCC DECISIONS CONFRONTING AT&T'S PRE-DIVESTITURE MONOPOLY POWER

AT&T and the Bell System's monopoly historically pervaded every aspect of the telephone industry, from terminal equipment to local switching and long distance services.[2/] AT&T's monopoly power remained largely unchecked until 1963, when Bernard Strassburg became the head of the FCC's Common Carrier Bureau, a post he would hold for a decade.[3/] Strassburg's accession to the Bureau Chief position was a milestone in the history of AT&T and long distance competition. Under his steady prodding and encouragement, the Commission adopted rules and policies and enforced a series of decisions challenging AT&T's monolith, introducing long distance competition and foreshadowing divestiture.[4/] Over a twenty-year period, Strassburg and the Commission developed a solid policy framework to overcome AT&T's monopoly and drive competition in long distance markets.

2/ AT&T achieved its dominance in the telephone industry by enforcing its patents, acquiring its competitors and refusing to sell equipment or to interconnect with the independent telephone companies. These practices led to the signing of the "Kingsbury Commitment" between AT&T and the Department of Justice in 1913. By then, however, AT&T's telephone monopoly was already well established. *See, e.g.*, Trebing, *Common Carrier Regulation — the Silent Crisis*, 35 Law & Contemp. Probs. 299 (1969); *see also* J. Warren Stehman, THE FINANCIAL HISTORY OF THE AMERICAN TELEPHONE AND TELEGRAPH CO. (Houghton Mifflin Co. 1925, reprinted Augustus M. Kelly 1967).

3/ *See* Peter Temin with Louis Galambos, THE FALL OF THE BELL SYSTEM 41 (Cambridge University Press 1987) (hereinafter "FALL OF THE BELL SYSTEM").

4/ According to one account, "a self-proclaimed New Deal liberal in the tradition of Thurman Arnold, Strassburg had a healthy suspicion of big business. He was also concerned that regulatory agencies like the FCC lacked the resources they needed to control effectively giant firms such as AT&T." FALL OF THE BELL SYSTEM, at 41.

If Strassburg and the Commission had not remained purposeful, steadfast and consistent in fostering competition in long distance markets, AT&T today might still be the monopoly provider of long distance services. The Commission, however, was willing to navigate uncharted waters to achieve its competitive goals, notwithstanding AT&T's strenuous and forceful opposition. Although AT&T tried to stave off competition by imposing unilateral tariff restrictions on interconnection of non-AT&T customer premises equipment ("CPE"), private branch exchanges ("PBX"), telephone key systems, mobile telephones, and private line services, the Commission aggressively investigated these restrictions and doggedly pursued the goal of fostering nondiscriminatory interconnection to AT&T's essential monopoly network facilities.[5] The Commission also rejected as contrary to the public interest AT&T's attempts to rationalize unreasonably discriminatory interconnection pricing policies which favored its competitive services over those of its competitors.[6]

Notwithstanding AT&T's claimed "sacrifice [of] economies of scale and incurrence of social costs" that it asserted in the face of the Commission's new policies, the Commission remained true to its conviction that facilities-based competition would have long-term benefits for the long distance market.[7] To achieve this goal, the Commission established regulatory safeguards to address the potential for dominant firms (*i.e.* those with market power) such as AT&T and the Bell System to exploit their control over bottleneck facilities to impede access by competitors.[8] The Commission also allocated spectrum for advanced microwave transmission technologies that allowed creation of alternative long distance transmission routes. In extending detariffing relief to non-dominant competitors, the Commission's foresight even anticipated the realization of Congress that forbearance policies would produce appropriate benefits for non-dominant new entrants, thereby enabling competition to develop.[9] These actions collectively set the stage for MCI Communications, Inc. ("MCI"), Sprint Communications Company, L.P. ("Sprint") and hundreds of other carriers to enter the long distance market.[10]

5/ *See* Sections II.A, II.C. *infra*.

6/ *See id.*

7/ *See* Section II.B *infra*.

8/ *See* Section II.D *infra*.

9/ *See id.*

10/ In 1984, AT&T posted toll revenues of $35 billion and 90 percent market share. By 1994, AT&T's revenues had increased only slightly above the 1984 total, while its market share had fallen to 55 percent. In contrast, MCI's revenues grew from almost $2 billion in 1984 to approximately $12 billion in 1994, with a market share of 17 percent. Sprint's revenues grew from about $1 billion in 1984 to almost $7 billion in 1994, with a

Today, the Commission is at the cusp of a new era in telecommunications. Competitive technologies such as fiber optics, multiplexing and digitization are further compressing signal processing and expanding network capacity on the nation's information infrastructure. A panoply of advanced system technologies such as personal communications services ("PCS"), competitive access providers ("CAPs") fiber rings, and other broadband and narrowband transmission architectures are fighting to topple the wireline LEC bottleneck in the local loop.[11/]

The pending telecommunications reform legislation embraces these technological developments and challenges the Commission to dismantle the last bastion of monopoly power in telecommunications markets — the wireline LEC bottleneck in the local exchange. AT&T's past resistance to the introduction of long distance competition is a compelling and historic parallel to the barriers to entry raised by incumbent wireline LECs to inhibit competition in today's local exchange market. This paper concludes that, just as the Commission introduced long distance competition by removing entry barriers and daring to establish nondiscriminatory interconnection standards, costing methodologies and other safeguards to rein in AT&T's monopoly power, the Commission can bring to a close the last chapter of monopoly power in today's local exchange market by duplicating the pro-competitive policies of its illustrious past.[12/]

A. Competition in Interconnection of Equipment and Services to AT&T's Network

In the early 1960s, the initial line of battle between AT&T monopoly forces and competitors was drawn at the customer premises. AT&T tariffs prohibited the interconnection or attachment of any customer premises equipment ("CPE") from the walljack to the telephone handset. Even "customized" equipment such as handset shoulder rests[13/] was prohibited if it was not provided by AT&T or the Bell System. Over the course

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market share of 10 percent. Smaller carriers tripled their market share, increasing from 3 percent in 1984 to 17 percent in 1994. *See Long Distance Market Share; Third Quarter 1995*, at 4 (Industry Analysis Div., released January 19, 1996).

11/ *See* Eli M. Noam, *Principles for the Communications Act of 2034; The Superstructure of Infrastructure*, 47 Fed. Comm. Law J. 317 (1994).

12/ *See* Rachelle B. Chong, *Trends in Communications and Other Musings on Our Future*, 47 Fed. Comm. Law J. 213, 215 (1994).

13/ AT&T's "foreign attachments" tariff made it illegal to attach any device to telephone company property without AT&T's prior approval. *See Hush-A-Phone Corp., et al. v. United States*, 238 F.2d 266, 267-8 (D.C. Cir. 1956) ("*Hush-A-Phone*"); *AT&T Foreign Attachment Tariff Revisions*, 15 F.C.C.2d 605 (1968), *recon.*, 18 F.C.C.2d 871 of the following decade, a series of landmark decisions, fueled by Strassburg's policy vision, unravelled AT&T's labyrinthine restrictions on interconnection of non-AT&T equipment and services. These decisions opened the door to competition by requiring AT&T to make interconnection to its telephone equipment and networks available to customers of AT&T's competitors on a just, reasonable and nondiscriminatory basis.

1. The *Hush-A-Phone* Case

The first proceeding to test AT&T's monopoly over telephone equipment involved a device called the "Hush-A-Phone." A "cup-like device" that snapped onto the mouthpiece of a telephone handset, the Hush-A-Phone was designed to provide a speaker with privacy in crowded offices and reduce ambient noise. A conflict arose with Hush-A-Phone when AT&T imposed conditions in its tariffs forbidding the use of terminal equipment other than that provided by AT&T and authorizing AT&T to suspend or terminate service for use of non-AT&T terminal equipment. Although the Hush-A-Phone had been commercially available since 1921, and over 125,000 Hush-A-Phones had been put into use by the 1950s, AT&T began to inform vendors and users of the Hush-A-Phone that use of the device was impermissible under AT&T's tariffs.

In 1948, the Hush-A-Phone Corporation filed a formal complaint against AT&T seeking an order from the Commission requiring AT&T to stop interfering with distribution and use of the Hush-A-Phone and to amend the foreign attachment provisions of its tariffs to permit the use of Hush-A-Phones. In an inauspicious and unpublished order released on December 21, 1955, the Commission dismissed Hush-A-Phone's complaint, finding that the device was "deleterious to the telephone system and injure[d] the service rendered by it." In 1956, however, the U.S. Court of Appeals for the District of Columbia ("Court of Appeals") held that the AT&T tariff restrictions on attachment of non-AT&T equipment were an "unwarranted interference with the telephone subscriber's right reasonably to use his telephone in ways which are privately beneficial without being publicly detrimental." The Court of Appeals thus set aside the Commission decision and remanded the proceeding.[14] The Commission subsequently ordered AT&T to revise its tariffs to remove any restrictions on attachment of the Hush-A-Phone or similar devices that would not impair the public telephone network or otherwise be detrimental.[15]

The *Hush-A-Phone* court decision cut the Gordian knot of AT&T monopolistic restrictions over terminal equipment. The concept of using telephone equipment without

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(1969); *see also* Joseph P. Fuhr, Jr., *Competition in the Terminal Equipment Market After Carterfone*, The Antitrust Bulletin 669 (Fall 1983).

14/ *See Hush-A-Phone*, 238 F.2d at 269.

15/ *Hush-A-Phone Corp. et al. v. AT&T Co.*, Decision and Order on Remand, Docket No. 9189, 22 F.C.C. 112 (1957).

AT&T's imprimatur was revolutionary and would enable the development and interconnection of advanced technologies and networks that were "privately beneficial" to customers.

2. The *Carterfone* Case

For several years after *Hush-A-Phone*, AT&T ignored the decision and revised its tariffs to continue to prohibit interconnection of customer-provided telephone systems.[16] The Commission remedied this deficiency in 1967, when it released its *Carterfone* decision.[17]

The Carterfone was designed to permit communications between a two-way radio user and a wireline customer.[18] In 1966, Carterfone filed a formal complaint against a provision of an AT&T tariff that would have barred attachment of the Carterfone to AT&T networks. The Common Carrier Bureau Chief, Strassburg, viewed Carterfone as a platform for formulating a policy of competition in the provision of otherwise monopoly services.

In its answer to Carterfone's complaint, AT&T claimed that installation of equipment it had not authorized would be injurious to the telephone network by giving the unauthorized equipment supplier an incentive to retard development of the network by resisting change and dividing responsibility for assuring effective operation of the network. AT&T asserted that:

> since the telephone companies have the responsibility to establish, operate and improve the telephone system, they must have absolute

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16/ *See* Dean Burch, *Common Carrier Communications by Wire and Radio: A Retrospective*, 37 Federal Comm. Law J. 85, 98-9 (1985) (hereinafer "Burch").

17/ *See Use of the Carterfone Device in Message Toll Telephone Service*, Initial Decision of Hearing Examiner, Docket No. 16942, 13 F.C.C.2d 430 (Review Board 1967); Decision, 13 F.C.C.2d 420 (1968) ("*Carterfone*"), *recon.*, 14 F.C.C.2d 571 (1968).

18/ A radio user would contact a human operator at the radio system's base station. When callers on the radio and telephone were both in contact with the base station operator, the handset of the operator's telephone was placed in a cradle in the Carterfone device. A voice control circuit in the Carterfone automatically switched on the radio transmitter when the telephone caller was speaking; when he stopped speaking, the radio would return to a receiving condition. A separate speaker was attached to the Carterfone to allow the base station operator to monitor the conversation, adjust the voice volume, and hang up his telephone when the conversation ended. From 1959 through 1966 approximately 4,500 Carterfones were produced and 3,500 sold to dealers and distributors domestically and internationally. *See Carterfone*, 13 F.C.C.2d at 420-1.

> control over the quality, installation, and maintenance of all parts of the system in order effectively to carry out that responsibility.[19]

The Commission rejected AT&T's argument, finding that it had made "no adequate showing that nonharmful interconnection must be prohibited in order to permit the telephone company to carry out its system responsibilities."[20] It then held that past and future application of the tariff restrictions to the Carterfone were unlawful and unreasonably discriminatory.[21] The Commission concluded that a "customer desiring to use an interconnecting device . . . should be able to do so, so long as the interconnection does not adversely affect the telephone company's operations or the telephone system's utility for others."[22]

In *Carterfone*, the Commission expanded customer access to the public switched network by tacitly acknowledging that competitor-provided interconnection to AT&T's network was pro-competitive. The Commission stated in the decision that "[n]o one entity need provide all interconnection equipment for our telephone system any more than a single source is needed to supply the parts for a space probe."[23] The Commission's action also extended the *Hush-A-Phone* doctrine — that a telephone subscriber has a federally protected right to interconnect telephone equipment that is privately beneficial without being public detrimental — to wireless communications.

3. The *Connecting Arrangements Order*

In the wake of *Carterfone*, AT&T filed tariff revisions in 1968 permitting interconnection of customer-provided terminal equipment subject to requirements of telephone company-provided connecting arrangements ("CAs") and network control signalling units ("NCSUs").[24] AT&T claimed that CAs and NCSUs were necessary "protective" devices to be positioned between AT&T's network and customer-provided terminal equipment. Because CAs were not needed to connect AT&T-provided equipment

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19/ *See id.*, 13 F.C.C.2d at 424.

20/ *See id.*

21/ *See id.*, 13 F.C.C.2d at 423.

22/ *See id.*

23/ *See Carterfone*, 13 F.C.C.2d at 424-5.

24/ *See AT&T Foreign Attachment Tariff Revisions*, 15 F.C.C.2d 605 (1968), *recon.*, 18 F.C.C.2d 871 (1969).

and were comparatively expensive, they enabled AT&T to hinder competition in equipment markets.[25]

Although the Commission allowed the CA and NCSU tariff provisions to take effect, it launched an inquiry in 1972 into whether the provisions could be liberalized without technical harm to the telephone network.[26] In the 1975 *Connecting Arrangements Order*, the Commission established a registration program to allow users to connect terminal equipment to the telephone network without using AT&T-supplied CAs, provided that the equipment or connecting protective circuitry had been certified by the Commission.[27] The program was particularly creative because it introduced a regulatory tool not specified anywhere in Title II.[28] The *Connecting Arrangements Order* thus demonstrates the Commission's ability to act to protect competitors' interconnection and access rights in the local exchange through policies not expressly identified within Title II but nonetheless necessary to promote competition in the local exchange.[29]

4. The *Miscellaneous Common Carriers* Order

In 1968, the Commission extended the interconnection principles enunciated in *Carterfone* to certain wireless providers of paging and one-way signalling called "miscellaneous common carriers" ("MCCs").[30] In the *MCC Order*, the Commission

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25/ *See* Burch, 37 Fed. Comm. Law J. at 98-9.

26/ *See Proposals for New or Revised Classes of Interstate and Foreign Message Telephone Service and Wide Area Telephone Service*, Notice of Inquiry, Docket No. 19528, 35 F.C.C.2d 539 (1972); First Report and Order, 56 F.C.C.2d 593 (1975) ("*Connecting Arrangements Order*"), *recon.*, 58 F.C.C.2d 716 (1976), *aff'd sub nom.*, *North Carolina Utilities Commission v. FCC*, 552 F.2d 1036 (D.C. Cir. 1977), *cert. denied*, 434 U.S. 874 (1977); Second Report and Order, 58 F.C.C.2d 736 (1976) (the Commission included private branch exchanges, key telephone systems and main station telephones in the registration program).

27/ *See Connecting Arrangements Order.*

28/ *See* Burch, 37 Fed. Comm. Law J. at 98-9.

29/ The Communications Act empowers the Commission to promote the availability of "a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges . . . ." *See* 47 U.S.C. § 151.

30/ *See Amendment of Part 21 of the Commission's Rules With Respect to the 150.8-162 Mc/s Band To Allocate Presently Unassignable Spectrum to the Domestic Public Land Mobile Radio Service by Adjustment of Certain Band Edges*, Report and Order, Docket No. 16778, 12 F.C.C.2d 841, 846 (1968) ("*MCC Order*").

allocated frequencies to AT&T, wireline telephone companies and non-wireline MCCs to provide one-way paging for use in the domestic public land mobile radio services ("DPLMRS").[31] The Commission also considered the consequence of allowing AT&T to provide its one-way paging "Bellboy" service in competition with wireless MCCs.

The MCCs claimed that AT&T's participation in the provision of DPLMRS would prevent non-wireline companies from competing effectively because of "the wireline [telephone companies]' monopolistic control of interconnection" and the "unfair competitive [] practices of the telephone companies in rate fixing and charging."[32] The MCCs also contended that AT&T and the Bell System would drive out wireless competitors "not from any superiority of the 'Bellboy' system but rather from Bell's method of computing below competitive rate charges."[33] In response to the MCCs, AT&T argued that the difference between its tone-only system and the MCCs' "tone-plus-voice" system precluded the provision of interconnection or dial access to MCCs. AT&T dismissed the MCCs' anticompetitive pricing arguments on the grounds that the "Bellboy" service had operated competitively and successfully in a number of communities in parallel with the MCCs' one-way services.[34]

The Commission rejected AT&T's arguments. The Commission ordered AT&T and other wireline telephone companies to make dial access interconnection available to the MCCs upon request in any community where such a method of operation was being used by the Bell wireline carrier, because "all technological advances should be made equally available to the nonwireline and[] wireline carriers."[35] The Commission further required AT&T to "fix its charges to the MCC for wireline facilities on the identical basis it uses to compute its own costs in connection with any one-way signaling service it offers" in order to prevent AT&T from charging higher rates to MCCs for use of the same facilities which AT&T or the associated Bell System used itself to provide "Bellboy" one-way paging services.[36]

The *MCC Order* demonstrates how the Commission facilitated new entry into emerging technology markets by reducing artificial barriers raised by a monopolist. When AT&T exerted monopolistic control of the gateways to the public switched network to which

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31/ *See id.*

32/ *See* 12 F.C.C.2d at 845-6.

33/ *See MCC Order*, 12 F.C.C.2d at 846-7.

34/ *See MCC Order*, 12 F.C.C.2d at 846-848.

35/ *See MCC Order*, 12 F.C.C.2d at 846.

36/ *See* 12 F.C.C.2d at 849.

wireless competitors required access, there was a serious concern that AT&T would anticompetitively restrict non-affiliated access to its network in favor of its affiliated wireless companies.[37] The Commission vigorously responded by imposing requirements upon AT&T to provide access and interconnection at just and reasonable rates and on nondiscriminatory terms and conditions.

In hindsight, it was no accident that the Commission's first grapplings with AT&T's monopoly would occur in the context of requests for interconnection. Just, reasonable and nondiscriminatory access and interconnection have been and remain leading indicators of the competitiveness of telecommunications markets.

B. Competition in AT&T's Private Line Services

The pro-competitive interconnection principles adopted by the Commission in *Carterfone* and its progeny were eventually expanded to require AT&T to provide competitive private line service providers with nondiscriminatory access and interconnection to its network. The combined force of the Commission's interconnection and private line policies led to the attenuation of AT&T's long distance monopoly and the introduction of facilities-based long distance competition.

1. The Advent of Microwave Communications

"Private line" service involved the provision of facilities dedicated to the exclusive use of a particular subscriber. The private line might either serve point-to-point communications or connect directly or indirectly (via a private branch exchange ("PBX")) to the public switched network.[38] In the 1950s, there were only two primary technologies for private line transmissions — coaxial cable or private microwave radio.[39] AT&T stressed the

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37/ *See Chastain et al. v. AT&T Co.*, Order, Docket No. 19793, 42 F.C.C.2d 314 (1973); 43 F.C.C.2d 1079 (1973). The FCC held that AT&T's refusal to interconnect the petitioner's "Attache Phone" (a manually dialed mobile telephone) was an unreasonable practice. Mobile telephone service, which originated in the 1940s, involved the use of manually dialed mobile telephone equipment. Upon the introduction of its "Improved Mobile Telephone Service" ("IMTS"), which included an automatic dial mobile telephone, AT&T refused to interconnect any type of mobile telephone other than IMTS.

38/ *See MTS/WATS Market Structure*, Third Report and Order, Docket No. 78-72, 93 F.C.C.2d 241, 248-9 (1983), *aff'd and remanded in part sub nom.*, *National Ass'n of Reg. Util. Comm'rs v. FCC*, 737 F.2d 1095 (D.C.,Cir. 1984), *cert denied*, 105 S.Ct 1224, 1225 (1985).

39/ *See Economic Implications and Interrelationships Arising From Policies and Practicies Relating to Customer Interconnection, Jurisdictional Separations and Rate Structures*, First Report, Docket No. 20003, 61 F.C.C.2d 766, 779 (1976) ("*Customer* use of coaxial cable after World War II, and only with the advent of television did AT&T recognize the potential of microwave as a transmission technology.[40]

Private microwave technology was developed during World War II when the Army Signal Corps sought ways to increase telephone transmission capacity in North Africa.[41] Using new principles of radio transmission by means of wave lengths a few centimeters long (microwaves), the Signal Corps designed a system of radio relays that could not be monitored except by locating the monitor between the two stations. Building a microwave network also was far more practical than laying cable in the Sahara desert. In the post-war market, Motorola became one of the primary proponents of private microwave technology for high-volume applications when Commission rules limited its use to industrial and utility communications.[42] As the chief supplier of private microwave equipment, Motorola wished to expand the private line market as much as possible and urged firms seeking to provide private microwave to petition the Commission to allow greater uses.[43]

The Commission responded to the private microwave proponents' petitions in 1959 by adopting the so-called "*Above 890*" decision.[44] The *Above 890* decision allocated spectrum for use by private microwave systems to provide private line telephone services in competition with AT&T. In allocating spectrum for private microwave applications other than industrial communications, the Commission observed that the "expanded eligibility will afford a competitive spur in the manufacturing of equipment and in the development of the communications art."[45]

2. The Emergence of MCI

The *Above 890* decision provided the raw materials for competitive service alternatives. In 1969, the Commission granted MCI's petition for Section 214 certification to

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Interconnection").

40/ *See id.*

41/ *See id.*

42/ *See* FALL OF THE BELL SYSTEM, at 29.

43/ *See id.*

44/ *Allocation of Frequencies Above 890 Mc.*, Report and Order, Docket No. 11866, 27 F.C.C. 359 (1959), *recon.*, 29 F.C.C. 825 (1960) ("*Above 890*").

45/ *See id.*, 27 F.C.C. at 414.

establish domestic point-to-point microwave service between Chicago and St. Louis.[46] Granting MCI authority to provide private microwave communications was in the public interest, the Commission reasoned, because it would result in lower rates and increase the flexibility available to customers.[47] The Commission rejected an argument by AT&T that MCI's proposed service would be "cream skimming" — *i.e.* proposing to operate exclusively on high density routes where lower fixed costs per channel permit lower rates and higher profits.[48]

Achieving the narrow four-to-three vote approving the MCI proposal (with the Chairman voting against MCI) "required the enthusiasm of the head of the Common Carrier Bureau [Strassburg] and of several pro-competition commissioners who strongly favored competitors."[49] On reconsideration, the Commission dismissed AT&T's argument that grant of MCI's proposal was based merely on competition for its own sake and neglected the injurious effect on existing carriers:

> The Commission approved the applications because MCI is offering a type of communications service not available from the existing carriers and for which a public need has been demonstrated. In effect the carriers are arguing that a new service should not be authorized if it will result in a diversion of any business from existing carriers irrespective of the benefits to be derived by the public from a grant of the requested authorizations. [The Commission] requires no such guarantee against competition.[50]

The Commission thereby took an unprecedented and forward-looking step in assigning spectrum to a competitor to challenge the AT&T monopoly in long distance services.

46/ *MCI Communications, Inc.*, Decision, Docket No. 16509, 18 F.C.C.2d 953 (1969) ("MCI Order"), *recon.*, 21 F.C.C.2d 190 (1970) ("*MCI Reconsideration Order*").

47/ *See MCI Order*, 18 F.C.C.2d at 960.

48/ *See id.*

49/ *See* FALL OF THE BELL SYSTEM, at 51.

50/ *See MCI Reconsideration Order*, 21 F.C.C.2d at 194.

3. The *Specialized Common Carrier* Order

By March of 1971, in the aftermath of the *MCI Order*, the Commission was flooded with over 1800 applications for private microwave stations.[51] The Commission initiated the *Specialized Common Carrier* rulemaking proceeding to resolve basic policy and procedural questions commonly posed by the applications.[52] In opposition to the applications, AT&T claimed that the entry of specialized carriers would result in the "sacrifice of economies of scale and the incurrence of social costs."[53]

The Commission rejected AT&T's argument, finding that there was:

> no reason to anticipate that new entry in the specialized field would result in any substantial diversion of AT&T's revenues or have any significant adverse impact on telephone users, the installation of large capacity systems to meet the growing communications requirements of all kinds, or the realization of declining unit costs."[54]

Even if specialized common carrier entry were to have a negative impact on AT&T's alleged economies of scale, the Commission further reasoned that any impact "would be more than offset by the other advantages inuring to the public from such new entry."[55]

The Commission concluded in *Specialized Common Carrier* that: (i) there was a public need and demand for the proposed facilities and services and for new and diverse sources of supply; (ii) competition in the specialized communications field was reasonably feasible; (iii) there were grounds for a reasonable expectation that new entry would have

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51/ *See Establishment of Policies and Procedures for Consideration of Applications To Provide Specialized Common Carrier Services in the Domestic Public Point-to-Point Microwave Radio Service and Proposed Amendments to Parts 21, 43, and 61 of the Commission's Rules*, Notice of Inquiry, Docket No. 18920, 24 F.C.C.2d 318 (1970) ("*Specialized Common Carrier Notice*"), First Report and Order, 29 F.C.C.2d 870, n.1 (1971) ("*Specialized Common Carrier*"), *recon.*, 44 F.C.C.2d 467 (1973), *aff'd sub nom.*, *Washington Utilities & Transportation Commission v. FCC*, 513 F.2d 1142 (9th Cir. 1975), *cert. denied* 423 U.S. 836 (1975).

52/ *See Specialized Common Carrier Notice*, 24 F.C.C.2d at 327.

53/ *See Specialized Common Carrier*, 29 F.C.C.2d at 883 (quoting *Specialized Common Carrier Notice*, at 332).

54/ *See Specialized Common Carrier*, 29 F.C.C.2d at 912.

55/ *See id.*

some beneficial effects; and (iv) there was no reason to anticipate that new entry would have any adverse impact on service to the public by existing carriers such as to outweigh the considerations supporting new entry.[56/]

The Commission's decision to allocate spectrum for competitive private line services and to authorize specialized common carrier offerings was only one piece in the puzzle of long distance competition. Nondiscriminatory access and interconnection by the new competitor to monopoly networks was the other key to long distance competition. In *Specialized Common Carrier*, the Commission stated that:

> where a carrier has monopoly control over essential facilities we will not condone any policy or practice whereby such carrier would discriminate in favor of an affiliated carrier or show favoritism among competitors.[57/]

The private line decisions, therefore, introduced the leitmotifs of pro-competitive regulation in monopoly markets — just, reasonable and nondiscriminatory rates and nondiscriminatory terms and conditions of interconnection.[58/] The decisions thus offer important models for the implementation of competition in the local exchange market of the future.

56/ *See Specialized Common Carrier*, 29 F.C.C.2d at 920.

57/ *See Specialized Common Carrier*, 29 F.C.C.2d at 941.

58/ In the subsequent "open skies" policy, the Commission recognized the importance of making "competitive sources of supply" available to specialized common carriers via then-burgeoning satellite technologies. *See Establishment of Domestic Communications-Satellite Facilities by Non-Governmental Entities*, Second Report and Order, Docket No. 16495, 35 F.C.C.2d 844, 847 (1972), *recon.*, 38 F.C.C.2d 665 (1972) ("*Open Skies*"). To prevent AT&T from extending its monopoly in terrestrial message telephone service ("MTS") into specialized common carrier services via satellite, the Commission placed a moratorium on AT&T's use of satellites for specialized common carrier purposes for three years, or until there was "substantial utilization" of satellites by competing specialized common carriers. *See* 35 F.C.C.2d at 852. Both Chairman Hundt and Commissioner Quello have independently praised the pro-competitive effects of the "open skies" policy on the domestic satellite market. *See* Chairman Reed E. Hundt, Speech Before the American Bar Association, Antitrust Section, Spring Meeting, 1995 FCC LEXIS 2293, at 3 (April 6, 1995) ("a multibillion dollar industry exists as the result of [the *Open Skies*] decision"); *see also* Commissioner James H. Quello, Speech Before the Washington Metropolitan Cable Club, 1995 FCC LEXIS 3696, at 3 (June 7, 1995) ("Many policies in the past that have resulted in increased competition have been initiated by the federal government, not by the states, including the *Open Skies* policy . . . .").

C. Synthesis of FCC Interconnection and Private Line Decisions To Establish Long Distance Competition

While the *Carterfone* interconnection decisions, the private line decisions in *Above 890*, and the *Specialized Common Carrier* decision proceeded separately for most of the 1960s, interconnection and private line issues began to merge in the 1970s. This merger is important to understand in order to synthesize the regulatory principles that will guide the development of competition in the local loop. In the private line decisions, the Commission allocated essential spectrum for use by potential and actual service providers in competition with AT&T's monopoly services and authorized new entrants such as MCI to provide competing private line services. *Carterfone* and its progeny defined the terms and conditions upon which AT&T's competitors would be allowed to gain access to AT&T's network. To the extent that the public switched network is an essential facility, and AT&T controlled the gateways to the network, it was inescapable that competing service providers would need to interconnect to AT&T's network just as competing equipment providers had done.

1. Bell System Tariff Offerings Proceeding

After the *Specialized Common Carrier* decision, MCI began negotiations with AT&T for the provision of interconnection. In the late summer of 1973, AT&T and the Bell System broke off negotiations and submitted tariffs to public utility commissions in each of the states in which MCI sought interconnection. Pending approval of these tariffs, AT&T announced that it would not provide interconnection to MCI if such services "terminated in AT&T supplied equipment."[59] On August 27, 1973, MCI wrote the FCC urging it to direct AT&T to provide interconnection to MCI on the same terms and conditions as provided to itself, and to prohibit AT&T from unilaterally enforcing tariffs filed with state regulatory agencies as a method of delaying the provision of interconnection and services.[60]

The Commission's response was prepared by Strassburg. After quoting from the *MCI* Order and *Specialized Common Carrier*, he stated that:

> . . . [I]t is our view that, as requested by MCI, the associated Bell companies are required to permit interconnection or provide local channel arrangements to MCI. As the Commission also stressed in its *MCI* and *Specialized Common Carrier* decisions, the Bell companies must treat MCI no less favorably in interconnecting its facilities than they do now for the Long Lines Department of AT&T or Western Union. It should also be apparent that the

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59/ *See Bell Telephone Co. of Pennsylvania v. FCC*, 503 F.2d 1250, 1256 (3d Cir. 1974), *cert. denied*, 422 U.S. 1026 (1975).

60/ *See id.*

> Associated Bell companies are not required to obtain approval from any state or local regulatory agency of any contract or tariff before they may provide interstate services or facilities to MCI for its interstate services.[61]

Strassburg's letter also informed AT&T that it was obligated to provide "local distribution services," *i.e.* exchange services, to MCI customers in Chicago and St. Louis.

AT&T steadfastly resisted. The FCC's Chairman next issued a letter order on October 4, 1973, requiring AT&T to submit its interconnection tariffs to the FCC and not to state regulatory commissions and ordering the Bell System to provide local exchange facilities to specialized common carriers.[62] When MCI requested clarification of this Order, on October 19, 1973, Strassburg informed MCI that the October 4th letter order contemplated AT&T's providing two common local exchange elements necessary for termination of private line service — foreign exchange service ("FX") and common control switching arrangements ("CCSA").

When AT&T brought an administrative challenge against the Strassburg and Commission letters, the Commission instituted an investigation in the *Bell System Tariff Offerings*, and concluded that it had in its prior actions required AT&T to provide FX and CCSA services to MCI and other specialized common carriers.[63] The Commission also reviewed the interconnection issues anew and concluded that AT&T was required to provide interconnection on a nondiscriminatory basis. The Commission stated: "achievement of our objective that competition in the provision of interstate private line communications services be on a full, fair and nondiscriminatory basis requires the issuance of broad interconnection orders."[64]

The *Bell System Tariff Offerings* proceeding highlights the FCC's principal role in facilitating long distance competition, not only by allocating spectrum for specialized common carriage use, but also by combating AT&T's attempts to avoid its interconnection obligations by refusing either to negotiate interconnection arrangements with MCI, terminate MCI's private line traffic or, by extension, to provide nondiscriminatory terms and conditions of interconnection.

61/ *See id.*, 503 F.2d at 1256 (quoting Letter from Bernard Strassburg to AT&T (August 31, 1973)).

62/ *See id.*, 503 F.2d at 1257.

63/ *See Bell System Tariff Offerings*, Docket No. 19896, 44 F.C.C.2d 245 (1973), *modified*, 44 F.C.C.2d 914 (1974), 46 F.C.C.2d 413 (1974), *aff'd sub nom.*, *Bell Telephone Co. of Pennsylvania v. FCC*, 503 F.2d 1250 (1974).

64/ *See* 46 F.C.C.2d at 426-7.